OTN Telestethoscope User Manual

June 2012

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Welcome to the OTN Telesteth Service

OTN is pleased to provide the Telesteth Service for OTN Members to use in conjunction with a real-time clinical videoconferencing event.

Key service features:

- The Telesteth utilizes a 3200® Digital Stethoscope which provides superior sound quality, making it easier to hear S3 gallop, murmurs and abnormal lung sounds versus analog stethoscopes.
- The Littmann 3200® connects wirelessly via USB2 Bluetooth technology to a Windows XP (or newer) PC and is easy to use in real-time telemedicine.
- The new service accesses OTN's Network via the internet through an SSL VPN (Secure Sockets Layer Virtual Private Network).

The purpose of this training manual is to provide you with all the information you need to set-up, install and use the Telesteth application in real-time telemedicine. Please follow each step in order to get started with the new Telesteth service.

Getting Started Checklist

Before you begin installing your Telesteth service, please ensure you have all the necessary permissions and equipment.

You must have:

1. Contacted your OTN Regional Manager to arrange purchasing and to complete the required forms to set-up your Telesteth.
2. Verified that your PC meets the required specifications.
   - See Telesteth PC System Requirements in this document.
3. Received your Littmann 3200 Digital Stethoscope.
4. Received a "Welcome" email from OTN that contains your username.
   - If you have not received a "Welcome" email, please contact your Regional Manager.
   - Note: information on accessing the e-training course for Telesteth will be included in the "Welcome" package.
5. Received a password from OTN via secure email or registered mail.

If all of the above are complete, then you may proceed with installation.

OTN Telesteth PC System Requirements

The Telesteth requires the use of a Windows PC/Laptop at both the Consultant and Patient site in order to transmit heart and lung sounds in a real-time Telemedicine event. This PC/Laptop may be used to support other OTN services such as Ncompass and Otn.teledermSF, in addition to Telesteth.

Should you decide to purchase a new PC through your organization or use an existing PC provided by your organization, it must be connected to OTN's network via the internet and an SSL VPN connection provided by OTN. Please see the requirements listed below, before choosing a new PC.

Minimum PC Hardware, Software and Network requirements for a new Telesteth PC:

CPU	• 1.5GHz or higher recommended
RAM	• 512K minimum, 1 GB recommended
Hard disk	• 1 Gb or higher
Sound card	• Transmission station uses 3M Littmann Stethoscope • Receiving station uses high-fidelity headphones including integrated USB sound card or 3M Littmann Stethoscope
Video card	• 1024x768 or better
Operating Systems	• Windows XP(sp2), Windows 7
Web browser	• Internet Explorer 7 or higher • Direct connection (not through proxy server)
Plug-ins	• Java 6 or higher (does Java 7 work?)
Connectivity	• Internet bandwidth 128Kbps or better • SSL VPN secure connectivity to OTN's network
Network/Firewall/Port Settings	• Allow web browsing • Outbound TCP ports 80 and 443 • Outbound TCP ports 1100 to 1300
USB Ports	• Version 2.0 support • USB extender required, if USB port is situated on the rear side of the PC.

Software Installation

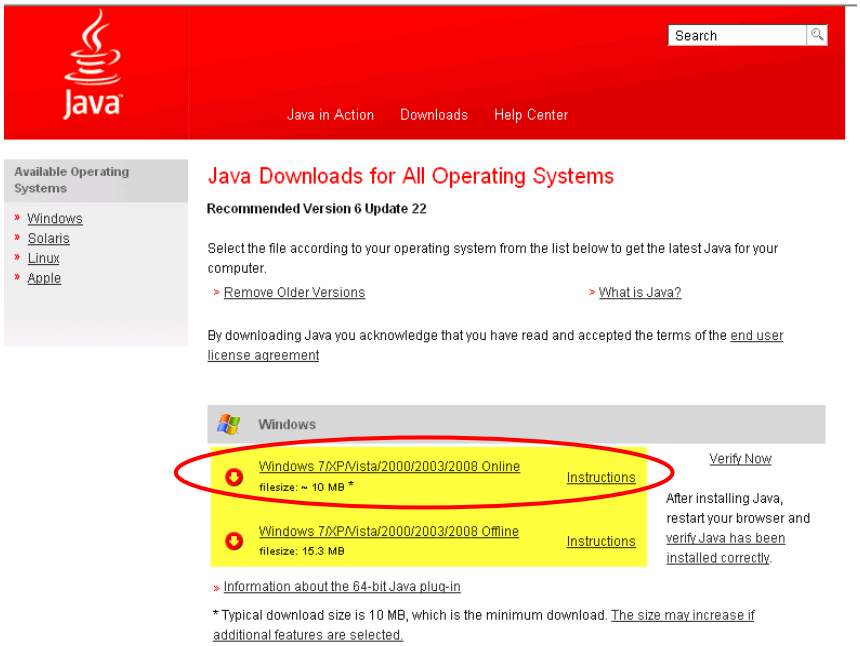
The software installation instructions provided are to guide you through the software installation process. Due to variances in Windows versions, PC software and updates to the service, there may be small changes in the way the software installs. Ask your IT department to assist you if you encounter any messages that do not align with these installation instructions.

a. Java 6 Plug-in

(Please do not install Java 7+ at this time as they are not compatible with Telesteth)

1. Open Internet Explorer
2. Type the URL: http://www.java.com/en/download/manual.jsp in the address bar.

3. Select *Windows Install*


Java
Search
Java in Action
Downloads
Help Center
Available Operating Systems
Windows
Solaris
Linux
Apple
Java Downloads for All Operating Systems
Recommended Version 6 Update 22
Select the file according to your operating system from the list below to get the latest Java for your computer.
Remove Older Versions
What is Java?
By downloading Java you acknowledge that you have read and accepted the terms of the end user license agreement
Windows
Windows 7/XP/Vista/2000/2003/2008 Online
filesize: ~ 10 MB *
Instructions
Windows 7/XP/Vista/2000/2003/2008 Offline
filesize: 15.3 MB
Instructions
Verify Now
After installing Java, restart your browser and verify Java has been installed correctly.
Information about the 64-bit Java plug-in
* Typical download size is 10 MB, which is the minimum download. The size may increase if additional features are selected.

4. Download Java and install – click *Run.*

Internet Explorer - Security Warning
Do you want to run this software?
Name: Java(TM) SE Runtime Environment 6.0 Update 22
Publisher: Sun Microsyster
Click Here
More options
Run
Don't Run
While files from the Internet can be useful, this file type can potentially harm your computer. Only run software from publishers you trust. What's the risk?

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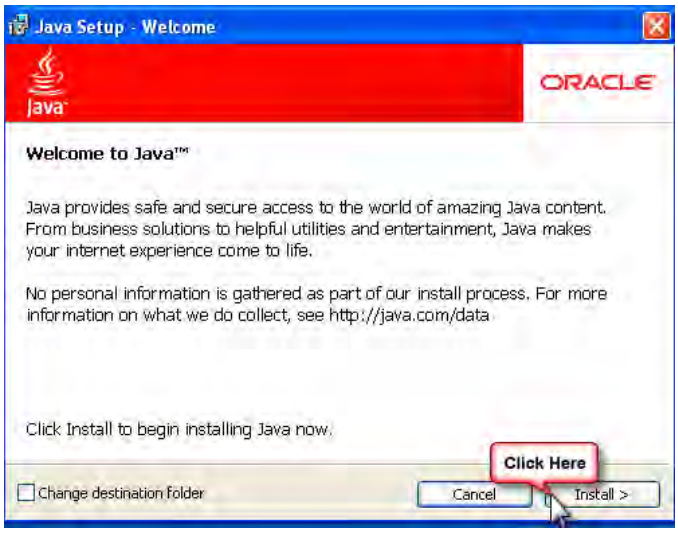
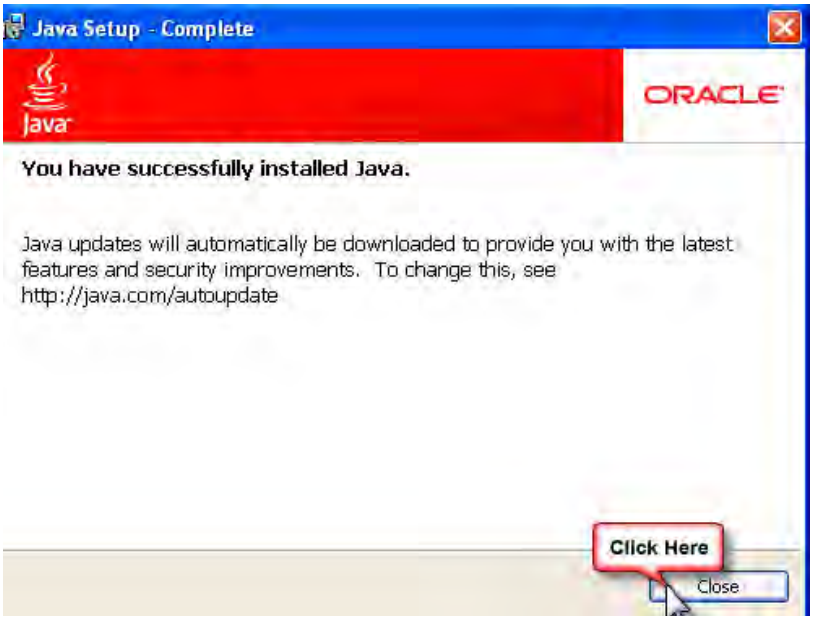
5. Click *Install.*


Java Setup - Welcome
ORACLE
Java
Welcome to Java™
Java provides safe and secure access to the world of amazing Java content. From business solutions to helpful utilities and entertainment, Java makes your internet experience come to life.
No personal information is gathered as part of our install process. For more information on what we do collect, see http://java.com/data
Click Install to begin installing Java now.
Click Here
Change destination folder
Cancel
Install >

6. Once installed, click *Close*.


Java Setup - Complete
ORACLE
Java
You have successfully installed Java.
Java updates will automatically be downloaded to provide you with the latest features and security improvements. To change this, see http://java.com/autoupdate
Click Here
Close

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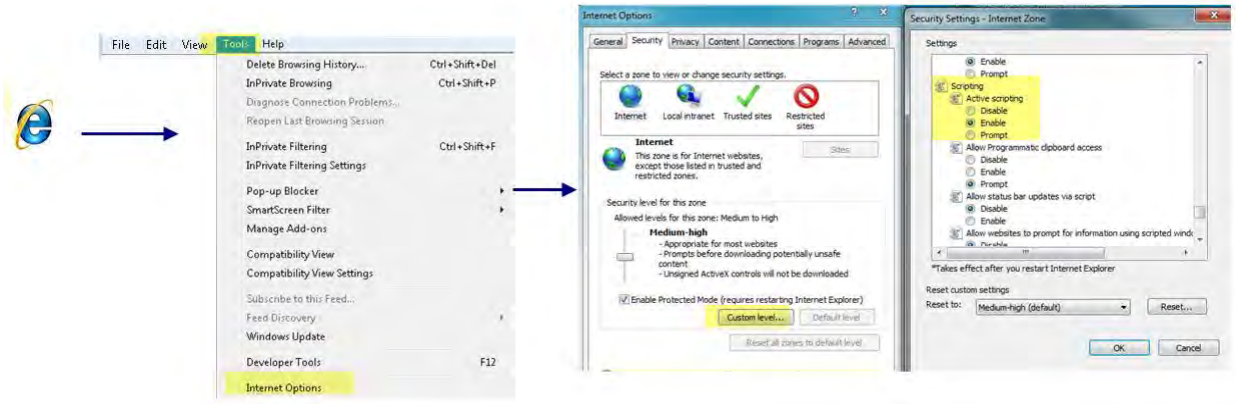
b. Enable Java script

Click on *Internet Explorer* (*IE*), click on *Tools* > *Internet options* > *Security* > *Internet* > *Custom level* > click *Enable on Active Scripting* > *Scripting Setting.*

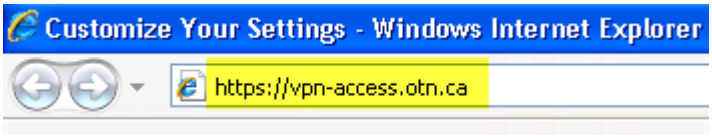


c. Cisco VPN Anytime Connect (SSLVPN)

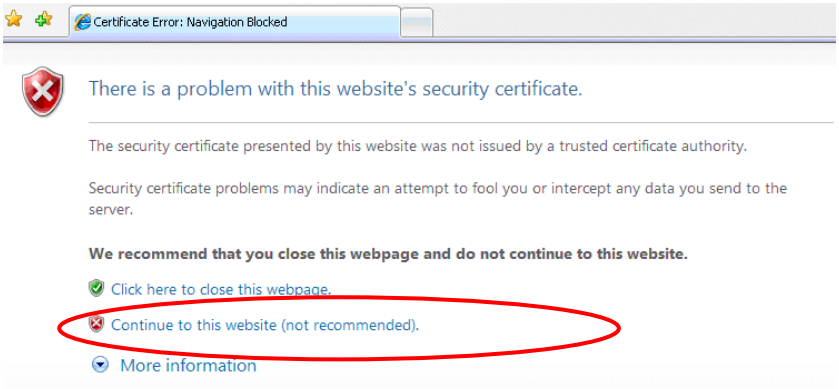
In order to access OTN's network and the Telesteth server, you must install OTN's SSL VPN secure remote access software.

1. Open *Internet Explorer*

2. Type the URL: https://vpn-access.otn.ca in the address bar.



3. A certificate warning may be displayed. Accept it to continue with the installation.


Certificate Error: Navigation Blocked
There is a problem with this website's security certificate.
The security certificate presented by this website was not issued by a trusted certificate authority.
Security certificate problems may indicate an attempt to fool you or intercept any data you send to the server.
We recommend that you close this webpage and do not continue to this website.
Click here to close this webpage.
Continue to this website (not recommended).
More information

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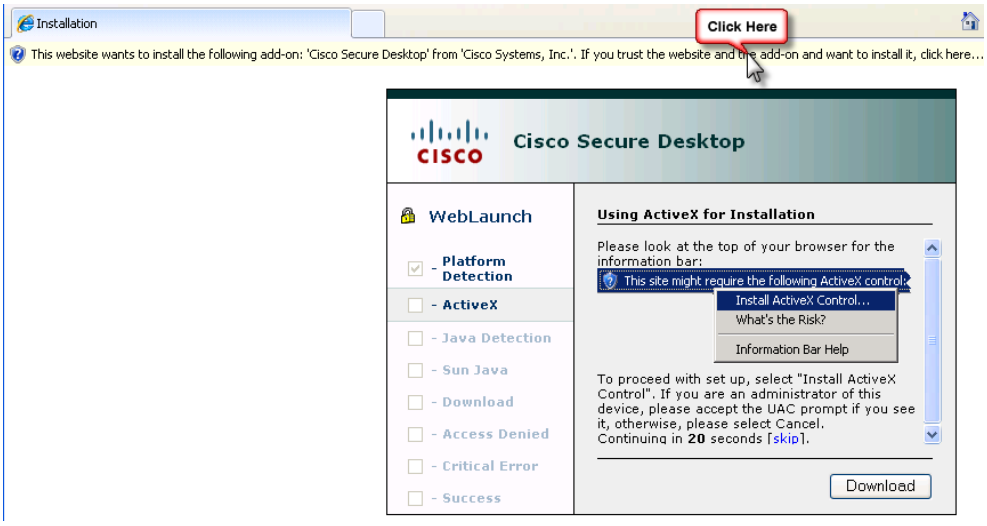
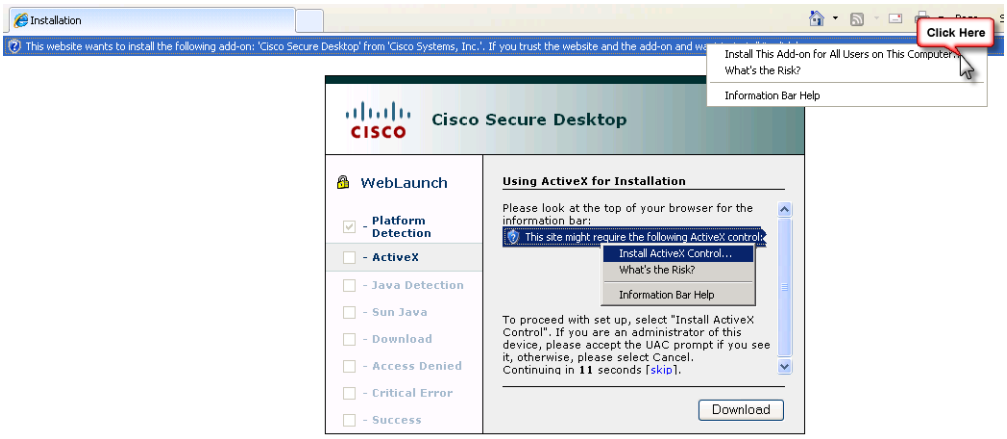
4. Click on *SelecteActiveX* prompt.


Installation
Click Here
This website wants to install the following add-on: 'Cisco Secure Desktop' from 'Cisco Systems, Inc.'. If you trust the website and the add-on and want to install it, click here...
Cisco Secure Desktop
WebLaunch
Platform Detection
- ActiveX
- Java Detection
- Sun Java
- Download
- Access Denied
- Critical Error
- Success
Using ActiveX for Installation
Please look at the top of your browser for the information bar:
This site might require the following ActiveX control.
Install ActiveX Control...
What's the Risk?
Information Bar Help
To proceed with set up, select "Install ActiveX Control". If you are an administrator of this device, please accept the UAC prompt if you see it, otherwise, please select Cancel.
Continuing in 20 seconds [skip].
Download

5. Click on *Install This Add-On for All Users* on this Computer.


Installation
Click Here
Install This Add-on for All Users on This Computer
What's the Risk?
Information Bar Help
Cisco Secure Desktop
WebLaunch
Platform Detection
- ActiveX
- Java Detection
- Sun Java
- Download
- Access Denied
- Critical Error
- Success
Using ActiveX for Installation
Please look at the top of your browser for the information bar:
This site might require the following ActiveX control.
Install ActiveX Control...
What's the Risk?
Information Bar Help
To proceed with set up, select "Install ActiveX Control". If you are an administrator of this device, please accept the UAC prompt if you see it, otherwise, please select Cancel.
Continuing in 11 seconds [skip].
Download

6. Install the required software from Cisco.

Internet Explorer - Security Warning
Do you want to install this software?
Name: Cisco Secure Desktop
Publisher: Cisco Systems, Inc
Click Here
More options
Install
Don't Install
While files from the Internet can be useful, this file type can potentially harm your computer. Only install software from publishers you trust. What's the risk?

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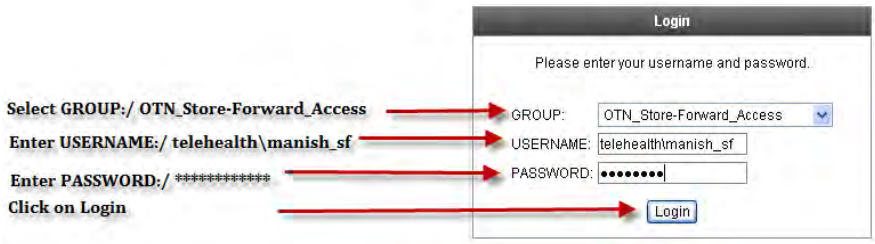
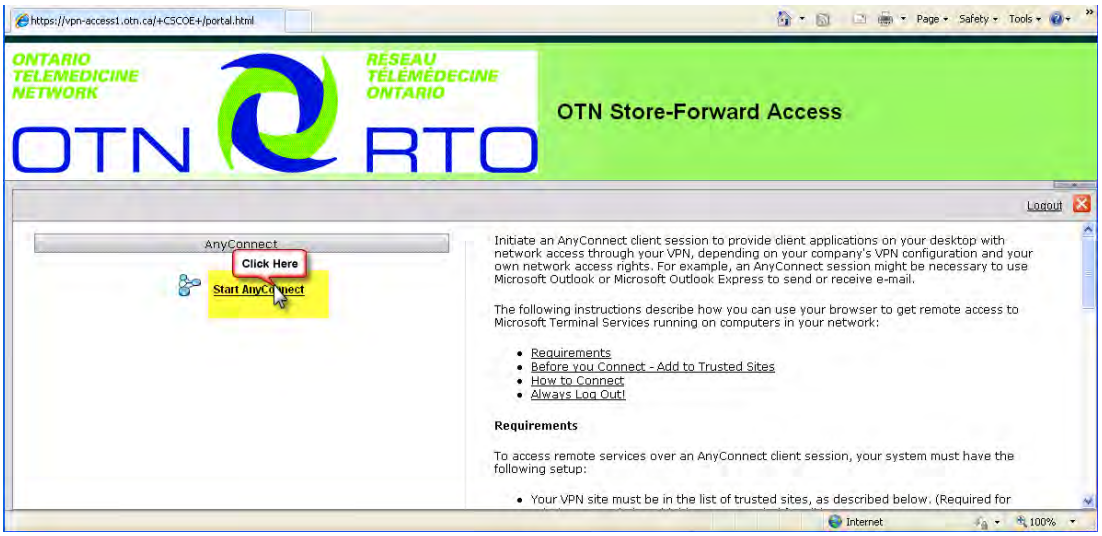
7. Select the Group *OTN_Store_Forward* and enter your Username and Password. Click on *Login* (Note: your log in information was sent with the Welcome Letter)



If you are logging in for the first time, you will be asked to enter a new password. Enter a new password and click Continue.

8. Click *Continue* on the "Welcome" screen.

9. Install *AnyConnect*. Click on *Start AnyConnect*.


ONTARIO TELEMEDICINE NETWORK
RÉSEAU TÉLÉMÉDECINE ONTARIO
OTN RTO
OTN Store-Forward Access
Logout
AnyConnect
Click Here
Start AnyConnect
Initiate an AnyConnect client session to provide client applications on your desktop with network access through your VPN, depending on your company's VPN configuration and your own network access rights. For example, an AnyConnect session might be necessary to use Microsoft Outlook or Microsoft Outlook Express to send or receive e-mail.
The following instructions describe how you can use your browser to get remote access to Microsoft Terminal Services running on computers in your network:
Requirements
Before you Connect - Add to Trusted Sites
How to Connect
Always Log Out!
Requirements
To access remote services over an AnyConnect client session, your system must have the following setup:
Your VPN site must be in the list of trusted sites, as described below. (Required for

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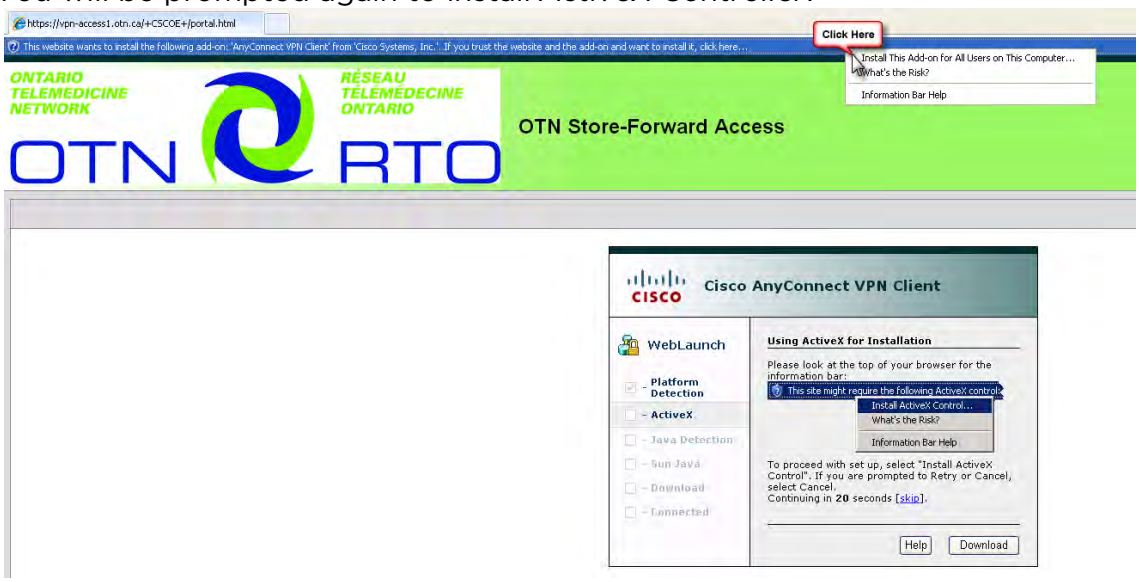
10. Click on *ActiveX Control* and select *Install This Add-on*.

https://vpn-access1.otn.ca/+CSCOE+/portal.html
This website wants to install the following add-on: 'AnyConnect VPN Client' from 'Cisco Systems, Inc.'. If you trust the website and the add-on and want to install it, click here...
Click Here
Install This Add-on for All Users on This Computer...
What's the Risk?
Information Bar Help
ONTARIO TELEMEDICINE NETWORK
RÉSEAU TÉLÉMÉDECINE ONTARIO
OTN RTO
OTN Store-Forward Access
Cisco AnyConnect VPN Client
WebLaunch
Platform Detection
ActiveX
Java Detection
Sun Java
Download
Connected
Using ActiveX for Installation
Please look at the top of your browser for the information bar:
This site might require the following ActiveX control:
Install ActiveX Control...
What's the Risk?
Information Bar Help
To proceed with set up, select "Install ActiveX Control". If you are prompted to Retry or Cancel, select Cancel.
Continuing in 12 seconds [skip].
Help
Download

11. You will be prompted again to install *ActiveX Controller*.


https://vpn-access1.otn.ca/+CSCOE+/portal.html
This website wants to install the following add-on: 'AnyConnect VPN Client' from 'Cisco Systems, Inc.'. If you trust the website and the add-on and want to install it, click here...
Click Here
Install This Add-on for All Users on This Computer...
What's the Risk?
Information Bar Help
ONTARIO TELEMEDICINE NETWORK
RÉSEAU TÉLÉMÉDECINE ONTARIO
OTN RTO
OTN Store-Forward Access
Cisco AnyConnect VPN Client
WebLaunch
Platform Detection
ActiveX
Java Detection
Sun Java
Download
Connected
Using ActiveX for Installation
Please look at the top of your browser for the information bar:
This site might require the following ActiveX control:
Install ActiveX Control...
What's the Risk?
Information Bar Help
To proceed with set up, select "Install ActiveX Control". If you are prompted to Retry or Cancel, select Cancel.
Continuing in 20 seconds [skip].
Help
Download

12. Install *Anyconnect*.

Internet Explorer - Security Warning
Do you want to install this software?
Name: AnyConnect VPN Client
Publisher: Cisco Systems, I
Click Here
More options
Install
Don't Install
While files from the Internet can be useful, this file type can potentially harm your computer. Only install software from publishers you trust. What's the risk?

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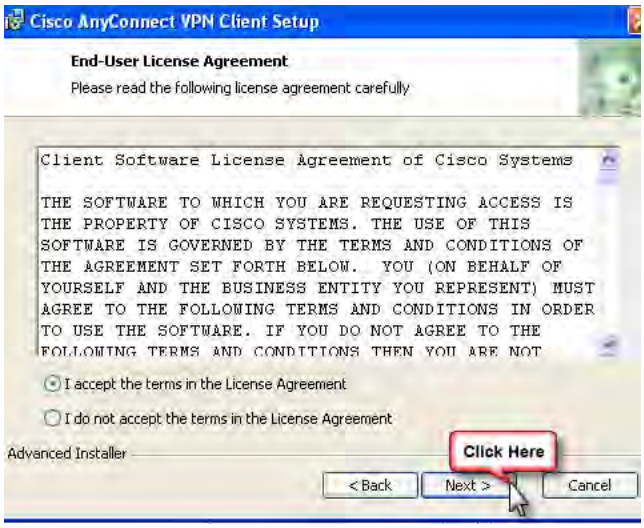
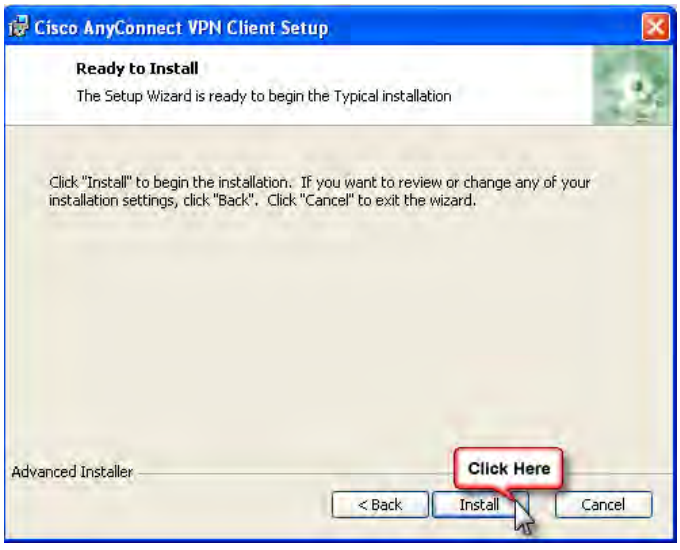
13. Click on *Next*.

Cisco AnyConnect VPN Client Setup
Welcome to Cisco AnyConnect VPN Client Setup Wizard
The Setup Wizard will install Cisco AnyConnect VPN Client on your computer. Click Next to continue or Cancel to exit the Setup Wizard.
Click Here
< Back
Next >
Canc

14. *Select I Accept* on the License Agreement and click *Next*.


Cisco AnyConnect VPN Client Setup
End-User License Agreement
Please read the following license agreement carefully
Client Software License Agreement of Cisco Systems
THE SOFTWARE TO WHICH YOU ARE REQUESTING ACCESS IS THE PROPERTY OF CISCO SYSTEMS. THE USE OF THIS SOFTWARE IS GOVERNED BY THE TERMS AND CONDITIONS OF THE AGREEMENT SET FORTH BELOW. YOU (ON BEHALF OF YOURSELF AND THE BUSINESS ENTITY YOU REPRESENT) MUST AGREE TO THE FOLLOWING TERMS AND CONDITIONS IN ORDER TO USE THE SOFTWARE. IF YOU DO NOT AGREE TO THE FOLLOWING TERMS AND CONDITIONS THEN YOU ARE NOT
I accept the terms in the License Agreement
I do not accept the terms in the License Agreement
Advanced Installer
Click Here
< Back
Next >
Cancel

15. Click on *Install*.


Cisco AnyConnect VPN Client Setup
Ready to Install
The Setup Wizard is ready to begin the Typical installation
Click "Install" to begin the installation. If you want to review or change any of your installation settings, click "Back". Click "Cancel" to exit the wizard.
Advanced Installer
Click Here
< Back
Install
Cancel

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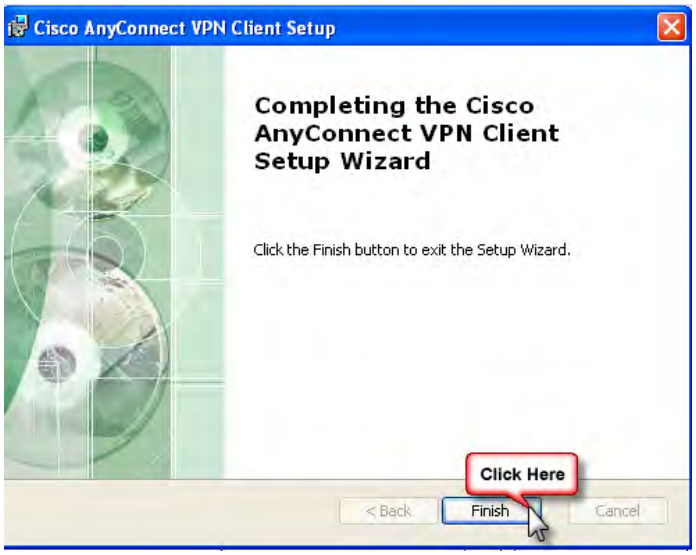
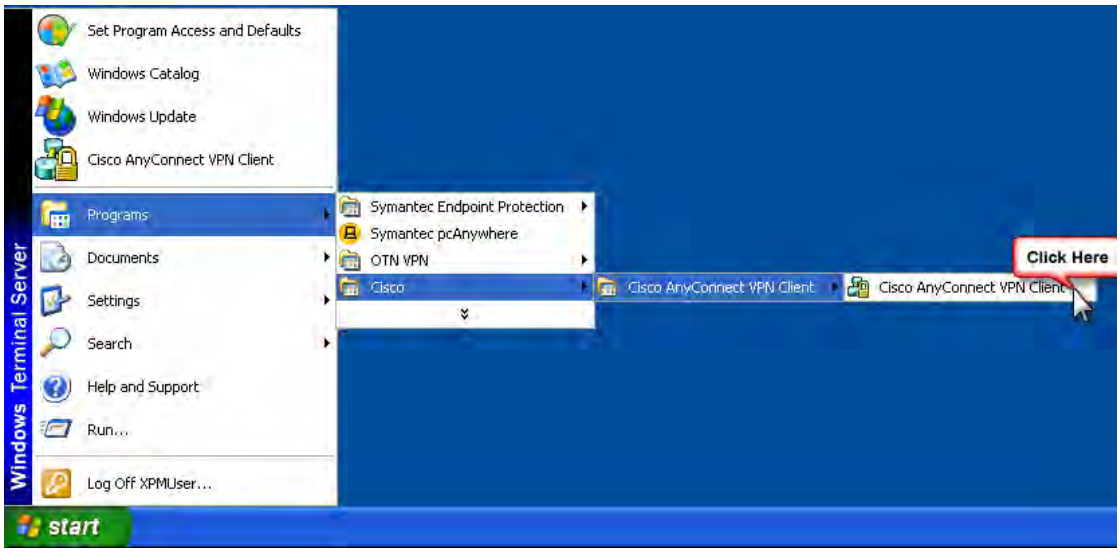
16. Once the install is complete, click on *Finish*.


Cisco AnyConnect VPN Client Setup
Completing the Cisco AnyConnect VPN Client Setup Wizard
Click the Finish button to exit the Setup Wizard.
Click Here
< Back
Finish
Cancel

17. Close the browser by clicking on "X".

18. To start OTN SSL VPN, click on *Start > Programs > Cisco > Cisco Anyconnect VPN Client > Cisco Anyconnect VPN Client (Note: helpful for TMC to have this as an ICON on their desktops)*



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19. Enter Group Name. Always select "*OTN_Store-Forward_Access*" with username as "*telehealth/yourusername*and password; click on *Connect*.

20. *Accept* on the Welcome screen.

21. Upon successful connection, you will see icons at the bottom on the taskbar for connection.

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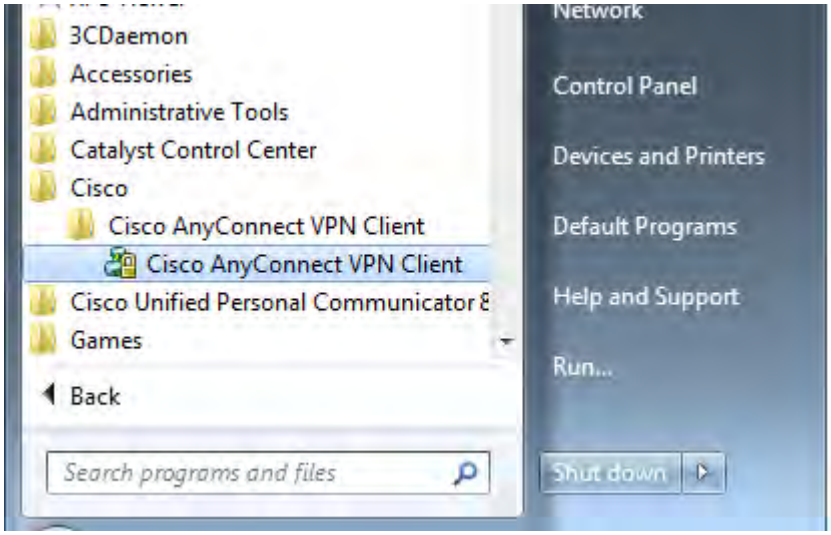
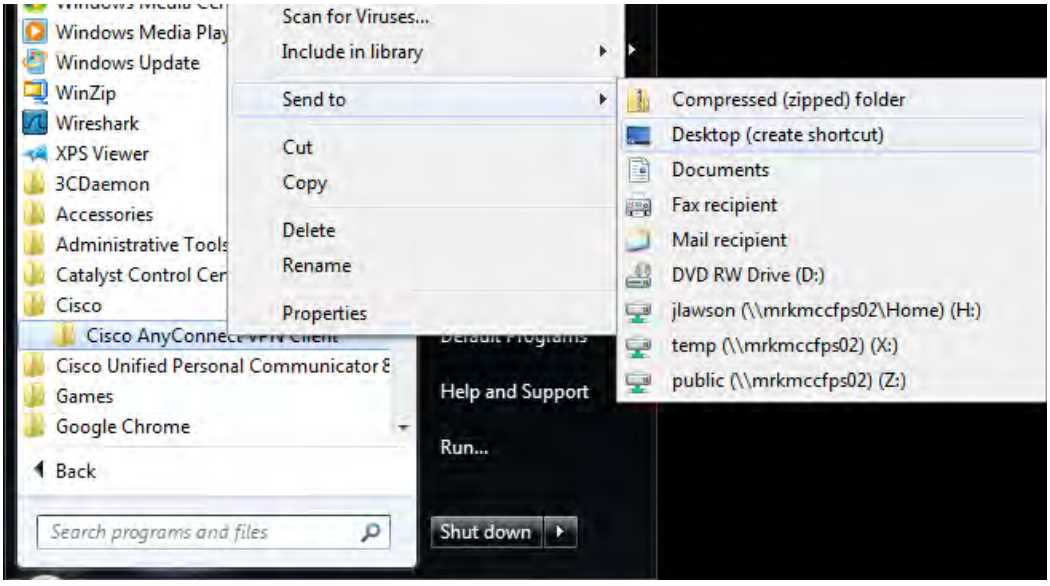
d. SSL VPN Shortcut

Placing the VPN client icon on your Desktop

1. Click the Windows Start button.
2. Click on All Programs – Cisco - Cisco AnyConnect VPN Client



3. Right click on “Cisco AnyConnect VPN Client” icon
4. Select “Send to” from the pop-up menu.
5. Select “Desktop (create shortcut)” from the next pop-up menu.



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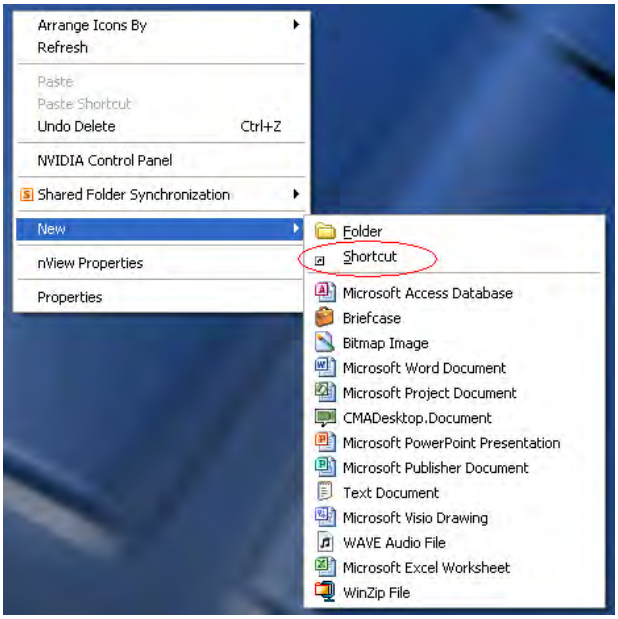
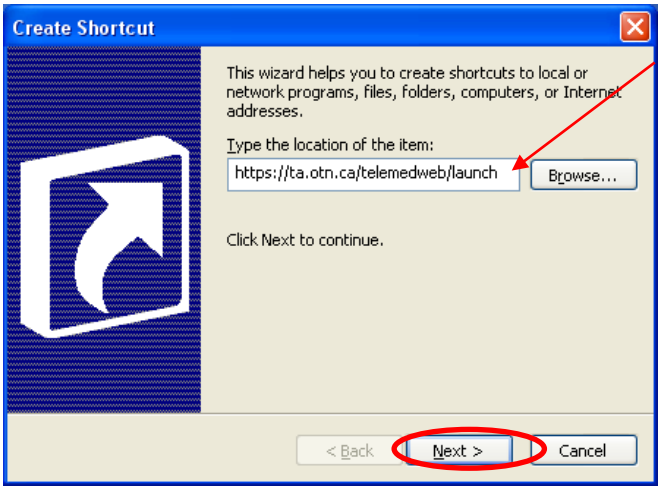
6. Verify that “Cisco AnyConnect VPN Client” icon is on your Desktop

e. *Installing OTN’s Telesteth Shortcut*

1. Create a new folder in your ‘My Documents’ directory and name it ‘OTN’. Copy the ‘Telesteth’ icon graphic file attached to the OTN Installation email and save it in your ‘OTN’ folder. If you do not have the Telesteth icon, you may skip this step.
2. Right click on your desktop screen and create a new Shortcut.



3. Type ‘https://ta.otn.ca/telemedweb/launch’ into the ‘Type the location of the item:’ field and then click on ‘Next’.


Create Shortcut
This wizard helps you to create shortcuts to local or network programs, files, folders, computers, or Internet addresses.
Type the location of the item:
https://ta.otn.ca/telemedweb/launch
Browse...
Click Next to continue.
< Back
Next >
Cancel

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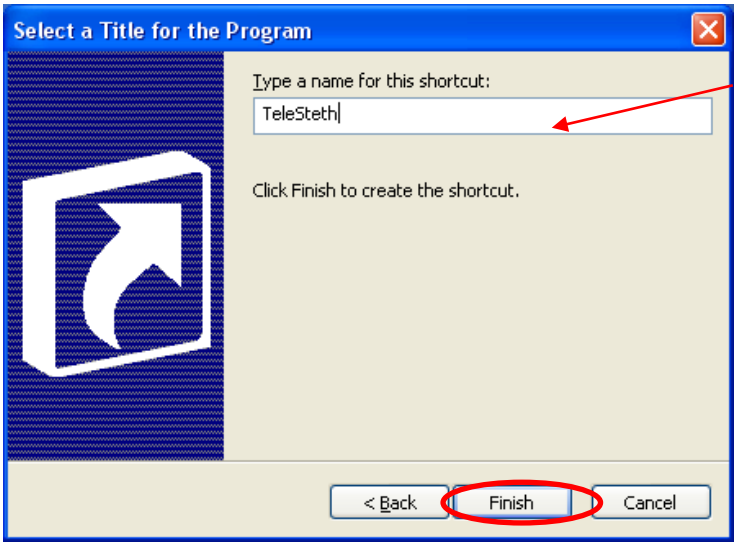
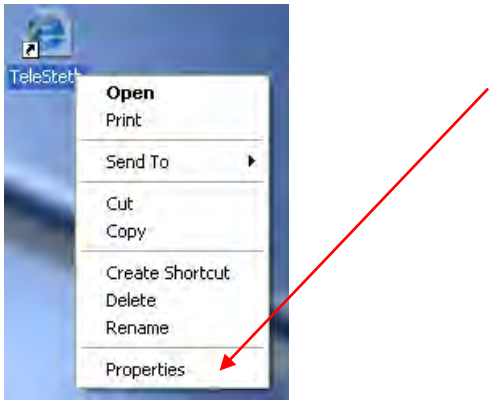
4. Type “Telesteth” in the **‘Type a name for this shortcut:’** field and the click on **‘Finish’.**



5. A shortcut named ‘Telesteth’ will be created on your desktop screen.

6. Right click on the ‘Telesteth’ icon and select properties.



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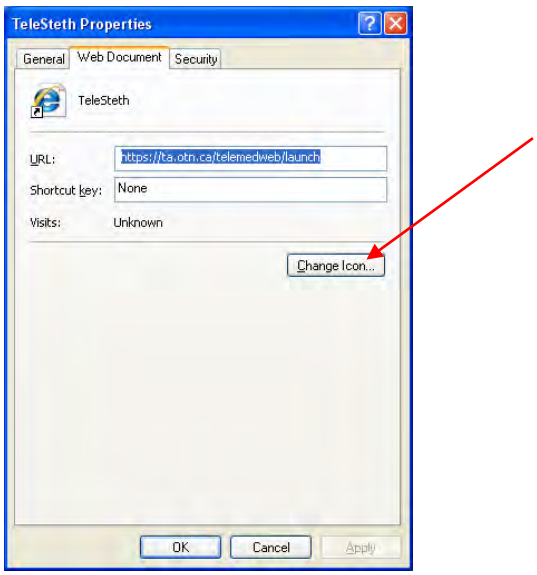
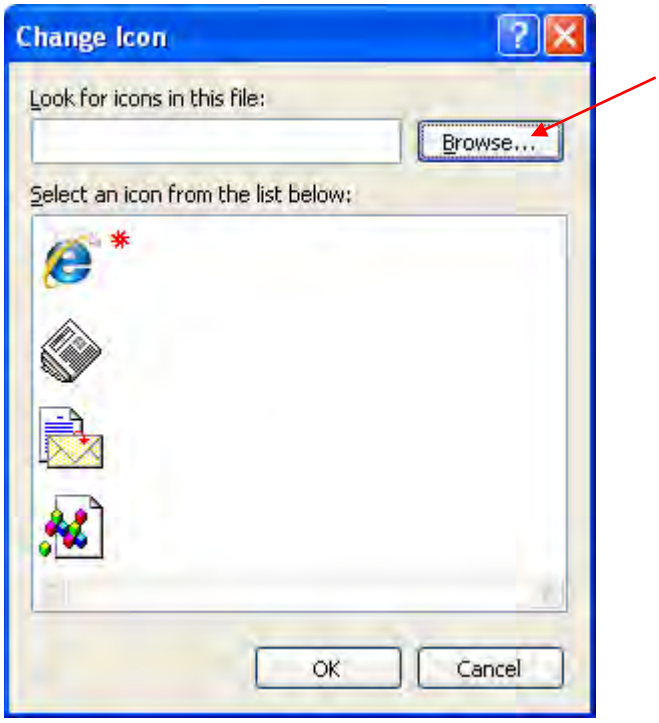
7. The properties window will expand as shown below. Click on “Change-icon”.



8. The following screen will appear:



1. Click on **‘Browse’**
2. Click on ‘My Documents’ then click on the “OTN” folder you created in Step 1.

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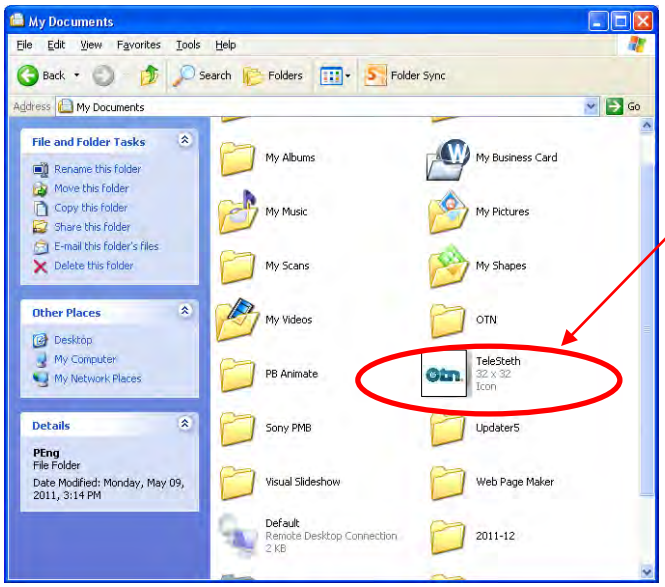
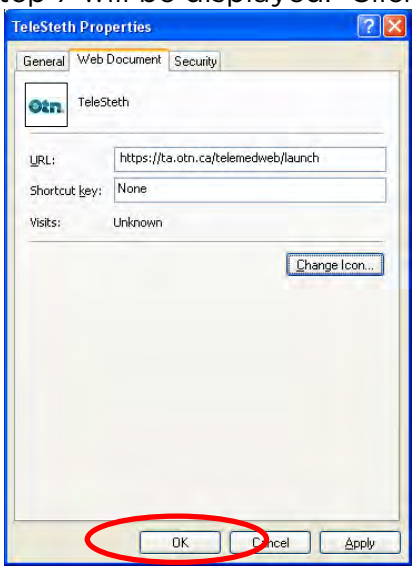


3. Select 'Telesteth" icon file which you saved in Step 1
4. Click on 'Open'

7. The following screen will be displayed. Click 'OK'.

8. The screen as shown in Step 7 will be displayed. Click 'OK'.



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9. The following icon will be displayed on your computer desktop.

10. Double-click on the 'Telesteth' icon created in Step 11. It will automatically launch the Telesteth internet site and prompt you to login (this will be the login information that you received in your New Site "Welcome" package.

Zargis TeleSteth - Online Auscultation Made Easy (02.02.0006, testta)
Welcome to Zargis TeleSteth™
Online Auscultation Made Easy™
Share auscultatory recordings & analysis
results with colleagues across town or across the globe
• Use the Internet to stream auscultations in real-time to colleagues located anywhere in the world.
• Share recorded auscultations via store-and-forward.
• Easily access Zargis TeleSteth from your PC.
• Fully compatible with Zargis Cardioscan & Zargis StethAssist®.
Username:
Password:
Forgot Password?
Login
Remember my username
To establish a Zargis TeleSteth account,
call 609-488-4608 (in U.S.).
Learn about Zargis Medical's other computer-aided auscultation products at www.zargis.com.
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Running a Real-Time Telesteth Session

1. Setting up for wireless stethoscope connection

   a) Plug the Bluetooth dongle into the USB port on the computer (supplied with the Littman 3200 Stethoscope). When running properly, a green light on the USB dongle will flash. **Note**: OTN and 3M do not support the use of Bluetooth devices other than the dongle provided with the Telestethoscope. The provided dongle has been certified by 3M to work correctly with the Littman stethoscope. Your telestethoscope should not be paired with Bluetooth transmitters that are built into laptops, nor should it be paired with other, non-certified Bluetooth dongles. Please have your IT resource assist with disabling any other Bluetooth functionality that may conflict with the operation of the supplied Bluetooth dongle.

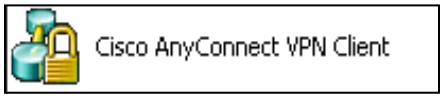
   b) If the only USB port is at the rear of your computer, please use an USB extender to elevate the dongle to be visible from the front.

2. Connecting to the OTN Network

   If you are using your SmartSteth PC, you will automatically be connected to the OTN network and may proceed to Step 3.

   Connect to OTN's Network using a secure SSL VPN by following these quick steps:

   a) Click on the VPN icon on your desktop.



   If the VPN icon is not on your desktop, it may be accessed through the Start button. Click on *Start* > *Programs* > *Cisco* > *Cisco Anyconnect VPN Client* > *Cisco Anyconnect VPN Client*

   b) Enter your Login information:
      i. Always Select "OTN_Store-Forward_Access"
      ii. Enter User Name and Password, click on Connect

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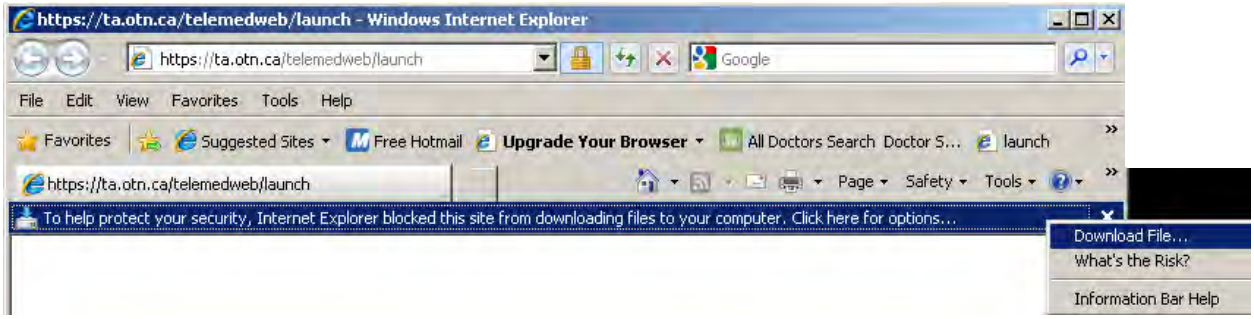
c) Click ‘Accept’ on the Welcome Screen.

d) Upon successful connection, you will see the VPN icon at the right lower corner of your screen on the taskbar.

3. Launching the Telesteth Software.
Double-click on the Telesteth icon on your desktop.

If a download warning appears, click on it and select ‘Download File.’
If a run prompt appears, click on run to start program.



4. Login to the Telesteth Software
Enter your private Username and Password.
Note – The Telesteth software requires each user to have his/her own username and password. Your password is the one you use to access all OTN services and must not be shared!

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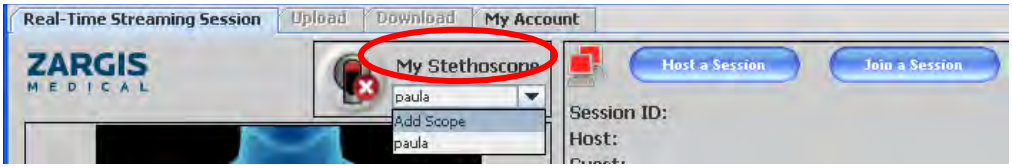
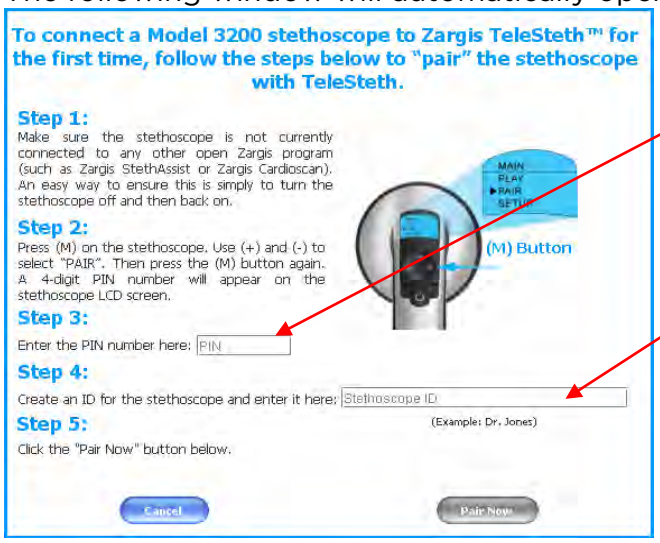
Welcome to Zargis TeleSteth™
Online Auscultation Made Easy
Share auscultatory recordings & analysis results with colleagues across town or across the globe
Username:
Password:
ZARGIS

5. Pairing your stethoscope:
   The first time you connect to the Telesteth software you will need to **pair** your stethoscope. To do this, click on the '**Add Scope'** option in the 'My Stethoscope' field.



The following window will automatically open. Please follow the steps exactly:

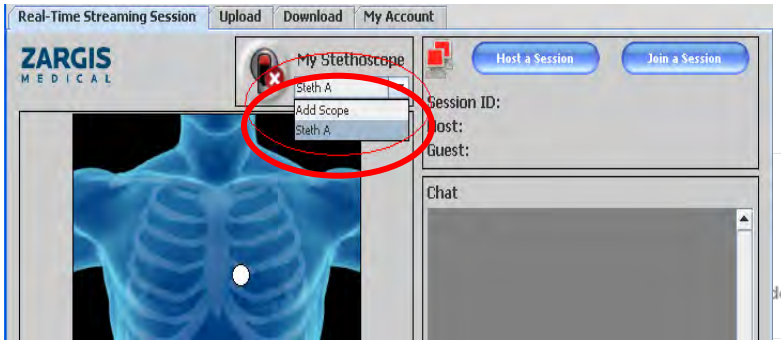

To connect a Model 3200 stethoscope to Zargis TeleSteth™ for the first time, follow the steps below to "pair" the stethoscope with TeleSteth.
Step 1:
Make sure the stethoscope is not currently connected to any other open Zargis program (such as Zargis StethAssist or Zargis Cardioscan). An easy way to ensure this is simply to turn the stethoscope off and then back on.
Step 2:
Press (M) on the stethoscope. Use (+) and (-) to select "PAIR". Then press the (M) button again. A 4-digit PIN number will appear on the stethoscope LCD screen.
(M) Button
Step 3:
Enter the PIN number here: PIN
Step 4:
Create an ID for the stethoscope and enter it here: Stethoscope ID
(Example: Dr. Jones)
Step 5:
Click the "Pair Now" button below.
Cancel
Pair Now

The PIN will be displayed on the stethoscope window. Type the number onto the software screen in this field.

Select a name for your stethoscope, this name will be displayed in the software. Type the name onto the software screen in this field.

Once you have paired your stethoscope, you will only need to connect when using the same computer for future stethoscope sessions. Please note, if you are using the SSL VPN and using the same stethoscope on different PCs, you will need to pair the stethoscope for each device prior to use.

6. Connecting your Stethoscope.
   Now that your stethoscope is paired, select the name of the



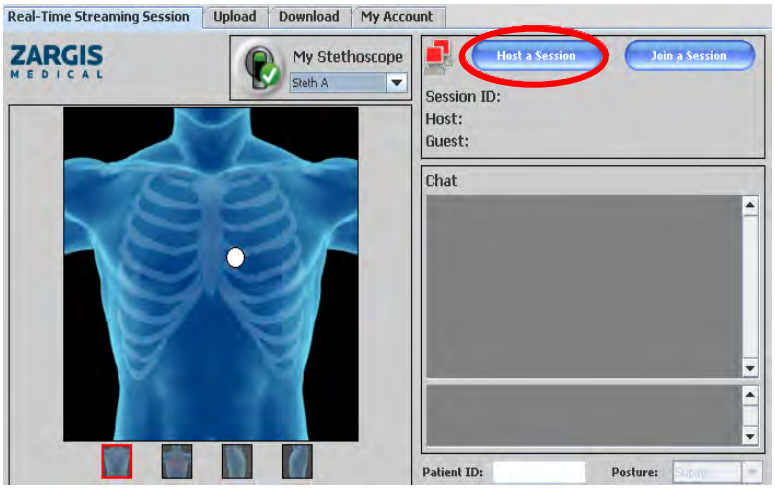
stethoscope at the site to which you want to connect from the drop down list. (Note: some sites may have more than one stethoscope.)

Power ON the Stethoscope.
Press “M”, select “Connect” and press “M” again to establish connection between Computer and Stethoscope.

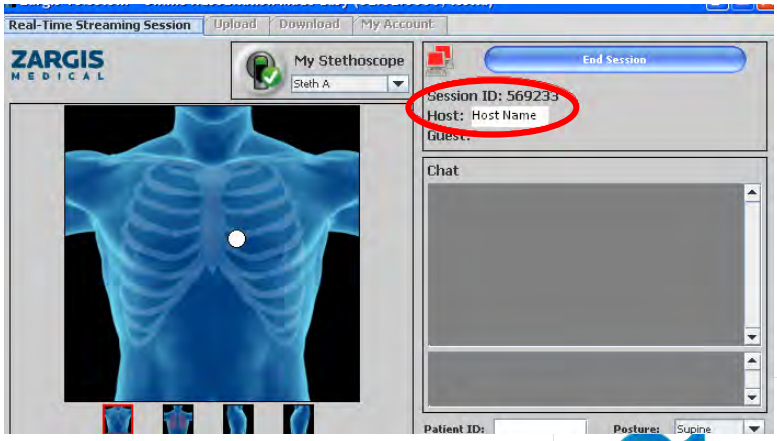
On successful connection, you will see a Green checkmark next to the name of the stethoscope.

7. Creating a Real-time Session
If you are the Patient site - click on the “Host a Session” button.
If you are the Consultant site – click on the “Join a Session” button.

Note: the Patient Site is the site transmitting the patient’s heart and lung sounds; therefore they must Host a Session.



A random “Session ID” number will be automatically generated and your login name will be displayed as the Host name.



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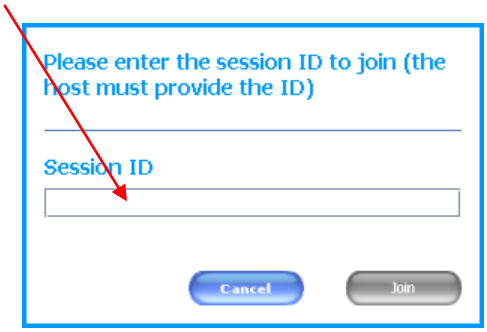
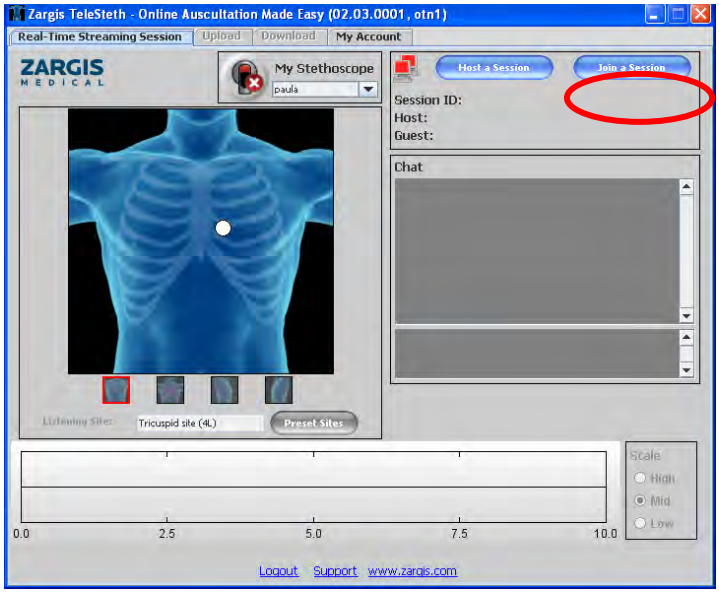
8. Share the Session ID number with the consultant site and ask them to click ‘Join a Session’ –they will be prompted to enter the session ID number provided in the pop up window.

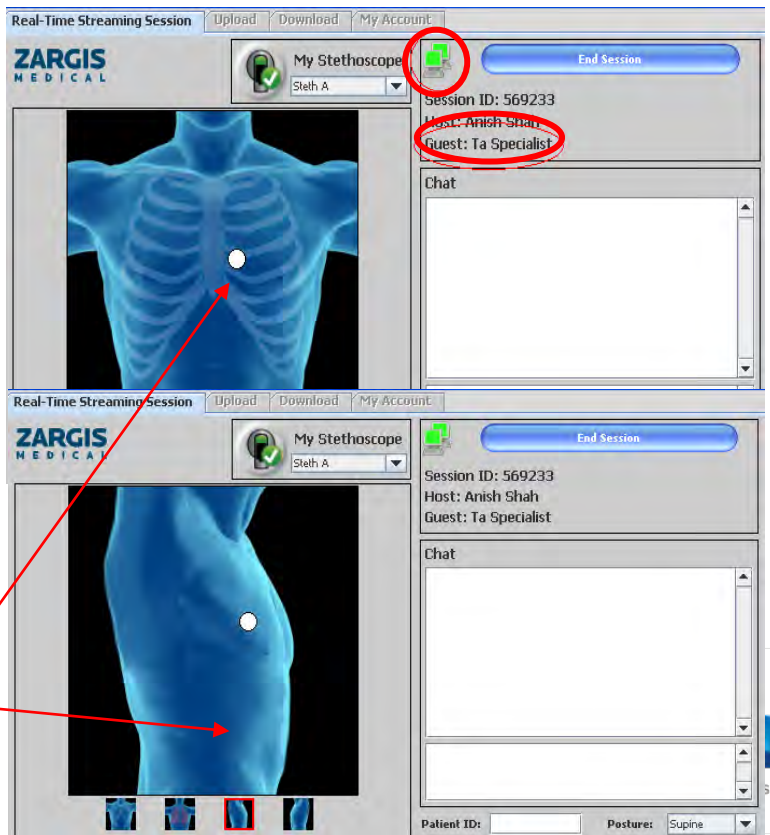




9. Once the Consultant site successfully joins the session, the computer icons should turn Green and the remote participant’s login name will appear as Guest.

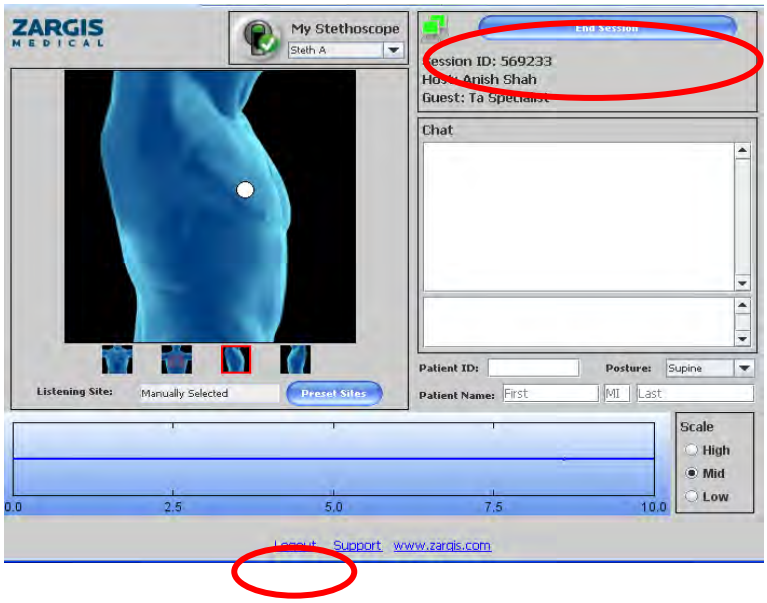
   The Consultant site must also select the option of how they will listen to the assessment by either choosing ‘Play to PC’ when using Headphones or ‘Play to Stethoscope’ when using Littman 3200 stethoscope in the Guest Audio Box.

   You are now ready to start the real-time transmission of heart

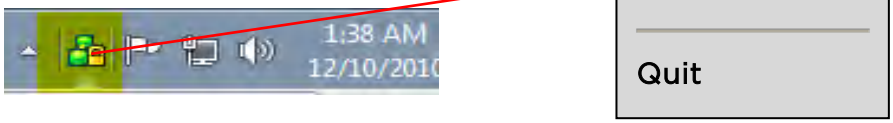


/lung sounds. If desired, you may demonstrate your stethoscope placement by selecting the appropriate mannequin icon in the software and indicate the position on the patient's body by clicking on the corresponding location on the mannequin. A white dot will appear where you have clicked.

10. <u>Ending the Session</u>
    When the patient assessment is complete, click on the End Session button; log out of the Zargis software by clicking on log out at the bottom of the screen.



11. If applicable, disconnect your SSL VPN by right clicking on the icon in the taskbar and selecting Disconnect.



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Getting to Know the Littmann 3200®

Littman 3200 Digital Stethoscope

1. Battery Powered - stethoscope takes one AA battery and will provide approximately 50-60 hours of continuous use.

   Changing the battery:
   Hold chest piece in one hand while slightly twisting the battery cap approximately 25º counter-clockwise. Remove battery cap. Insert new battery with positive end out (+ sign will be visible in the battery compartment).
   Remount battery cap, twisting cap approximately 25º clockwise until locked. Make sure the two marks are aligned.

2. Position the Headset - Ear tips should point in a forward direction as you insert them into your ear canals. When ear tips are properly positioned, diaphragm will face towards your body.

3. Turn On / Off – This stethoscope has an advanced power management system.

   Manual Turn On: Depress and release power button. LCD display will activate, indicating stethoscope is on.
   Manual Turn Off: Depress and **hold** power button for two seconds. LCD display will shut off, indicating stethoscope is off.
   Auto Off with Standby Feature: After manual turn-on, stethoscope will stay on during use, but switch to a power saving "standby" mode after 20 seconds of inactivity. LCD display will display the Littmann® logo during standby mode. When stethoscope diaphragm or any button is pressed, LCD display settings will reappear and stethoscope will be ready to use. After two hours of non-use, the stethoscope will leave standby mode and fully power off.

4. Select Filter - This electronic stethoscope allows the user to select between three

   - Bell mode amplifies sounds from 20 - 1000Hz, but emphasizes lower frequency sounds between 20 - 200Hz.
   - Diaphragm mode amplifies sounds from 20 - 2000Hz, but emphasizes the sounds between 100 - 500Hz.
   - Extended Range mode amplifies sounds from 20 - 2000Hz similar to the Diaphragm mode, but provides more low frequency response between 50 - 500Hz.

5. Adjust Sound Amplification Levels – the (+) and (–) can be used to amplify the sound levels in 8 increments up to 24x amplification of a non-electronic stethoscope.

6. Custom Configuration – the stethoscope has several operational settings that can be changed to suit your needs. Press the (M) button to access the main menu, the (+) and (-) buttons for scrolling and the (M) button for selecting options. The Filter button acts as an escape key.

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Best Practices Recommendations:

Optimize use of your wireless digital stethoscope

- It is important that the stethoscope chest piece and wireless dongle are in close proximity and that the path between them is free of any obstructions. Walls, furniture, and bodies may degrade the wireless signal.
- Positioning of the stethoscope and wireless adapter is important to good wireless performance. In some cases, when the USB port is located at the rear of your computer, use of a USB extension cable can improve signal strength by elevating the adapter and reorienting it to face the front.
- It may help for the computer to be located in front of, or next to, the patient (rather than behind them) so that the patient's body does not block the signal path. Minimize the distance between stethoscope and PC. Under typical conditions, a distance of 10 feet should be readily achievable.
- Hold the chest piece firmly with fingertips (rather than a cupped hand) to allow the wireless antenna to be unobstructed for optimum performance.

Optimize sound quality:

- *Environment*
  - Ensure there are no background conversations during assessment.
  - Minimize background sounds as much as possible.
- *Patient Preparation*
  - Properly prepare the patient so that stethoscope assessments can be conducted against bare skin.
  - Instruct the patient to breathe in a normal and quiet manner.
  - Remind the patient not to speak during the assessment.
- *Stethoscope Placement*
  - The sound sensor is quite small and is located in center of the chest piece, so it is important to focus on the point of contact with the patient with the very centre of the chest piece.
  - Firm contact is necessary; excessive pressure on the patient may result in artifact sounds.
  - Contact with the patient must remain steady and consistent for optimal sound quality. Movement with the chest piece will induce frictional noise.
  - It is best to start your exam at a lower amplification level and increase as required.

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Cleaning

Cleaning of the stethoscope should be done between each patient use. Ear tips, ear tubes, plastic tubing and chest piece can be wiped clean with alcohol. Ear tips may be removed for a more thorough cleaning.

Note: Do not immerse the stethoscope in any liquid or subject it to any sterilization process.

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Scheduling OTN Telesteth

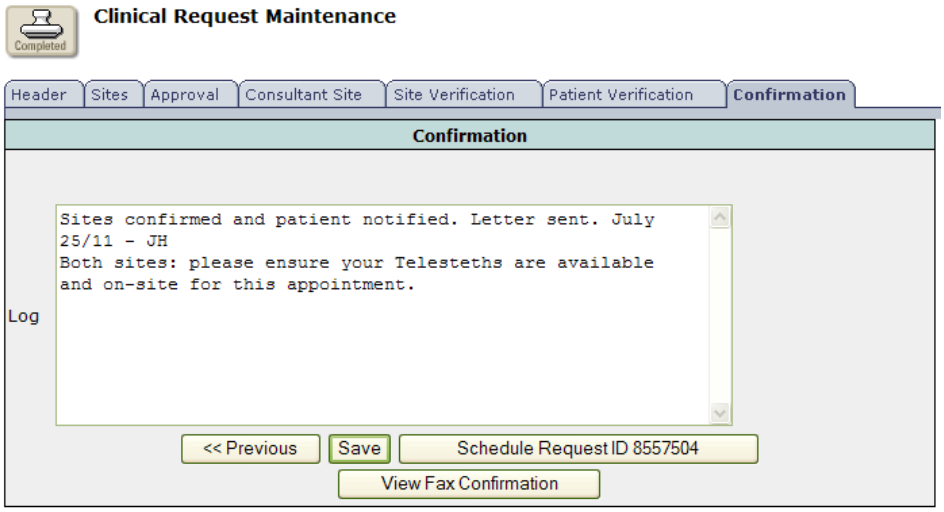
Here is a checklist to consider when scheduling a clinical encounter that requires a stethoscope:

1. Review the Consultant protocol and/or the OTN referral form (considering past practices of the consultant) to determine if a stethoscope is required for the telemedicine appointment.
2. When you confirm the appointment with the patient and consultant sites:
   a) Check that they will be using Telesteth.
   b) Ensure that Telesteth is available.
      - If the Telesteth is installed on a laptop and is portable, ensure the laptop is available at the system being used.
      - If a Telesteth is not available at the system you are booking, search for a system that has one available.
      - If there is no Telesteth available, ask the consultant if Telesteth is required.
3. Once the event is confirmed, please include the following reminder in your usual notifications to the consultant and patient sites:

   "You will be using your Telesteth. Please have available at the appointment."

Examples:

Scheduling a stethoscope using the TSM log



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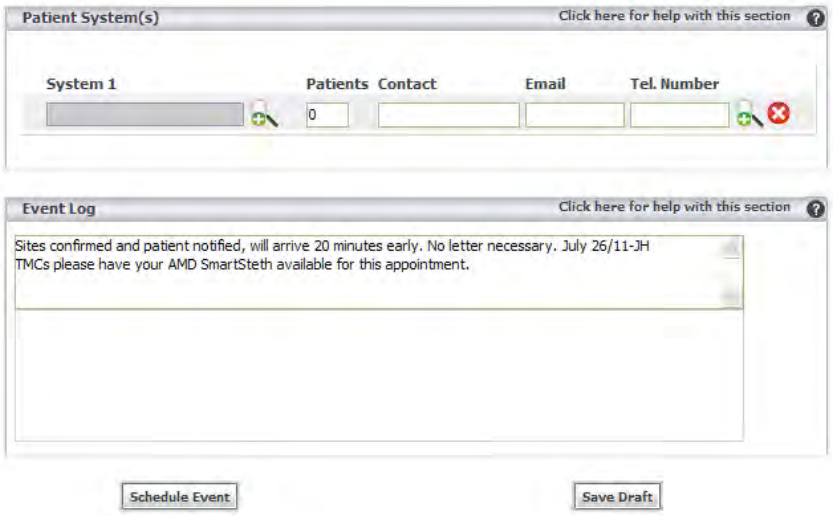
Scheduling a stethoscope using the Ncompass Event Log



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Troubleshooting

The following chart is designed to help troubleshoot issues with the Littman 3200® Stethoscope.

Problem	Possible Cause	Possible Solution
Trouble hearing anything when using the stethoscope?	Ear pieces in backwards	Littman stethoscopes have headsets that are angled and designed to fit properly within your ear canals. When holding the stethoscope, be sure that the headset is pointed towards the ceiling and then when placing it in your ears, be sure that the headset is pointed towards your nose.
	Sound amplification is set too low	Adjust the sound amplification by pressing the (+) and (-) buttons on the keypad. It is important that the very center of the chest piece is making good contact with the patient, as this is the location of the sound sensor.
Consultant site only is unable to hear anything when using the stethoscope	Software at consultant site has option of 'Play to PC' checked	Select the option of 'play to stethoscope".
Littman won't pair with Telesteth software	Bluetooth dongle not plugged into USB port before initiating the Telesteth software	Exit the Telesteth software and ensure that the Bluetooth dongle is in the USB port and flashing. Restart the session and attempt to pair.
	USB port is obstructed or behind the computer	If your USB port is at the back of the PC, use a USB extender to re-position it and create a clean line of site between the Bluetooth dongle and the Littman.
	Built-in laptop Bluetooth is not functioning	OTN does not support the use of Bluetooth devices other than the dongle provided with the Telesteth.
Internet connection keeps dropping	SSLVPN has timed out due to inactivity	The OTN SSL VPN is set to time-out after approximately 30 minutes(verify please) of inactivity. If you plan to use the Telesteth for a clinic, ensure that you reactivate it between patients by tapping the diaphragm.
	Inconsistent service from the internet service provider	Talk to your IT department or call your internet service provider to ensure connectivity is consistent.
	Wireless internet connection signal strength is weak	OTN does not recommend the use of wireless internet for real-time clinical telemedicine. Plug your PC into a land

		line and run the session again.
Unable to initiate Telesteth application software	Telesteth icon missing on desktop screen	Open Internet Explorer browser and key-in URL: https://ta.otn.ca/telmedweb/launch
	On clicking - The Telesteth icon does not connect to the server	Open Internet Explorer browser and key-in URL: https://ta.otn.ca/telmedweb/launch
Telesteth session ended abruptly	Error displayed "Communication error"	Make sure the Stethoscope device is within the range of the Bluetooth dongle installed on the PC. The available bandwidth on the internet connection may not be sufficient to support a Telesteth session. This may be due to other local applications demanding internet bandwidth at the same time If using SSL-VPN, make sure that your secure session is running by looking at the icon on the bottom right of your screen:
	Session ended	Host site needs to restart the session by clicking 'Host a Session' and communicating the new Session ID # to the consultant side.
		The stethoscope device has an AutoOff function that will switch off power to the device after a few minutes of inactivity. You could disable the Auto Off feature, however this will drain your battery quickly. To disable Auto Off, press the M button on your stethoscope, use the +/- keys to scroll to Set Up, press M again, then use the +/- keys to scroll to Auto Off, press M then scroll to Disable and press M a final time.
Can't login to the server		Make sure that you are correctly keying in the username and password provided by OTN. Please note that the username and password are case sensitive. Contact OTN Service desk at 1-866-454-6861

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Telesteth Technical Support and Advanced Exchange Hardware Warranty Replacement Process

Along with the Telesteth pricing, OTN has also negotiated an Advanced Exchange Hardware Replacement process through Cardinal Health and 3M Canada. Through the Advanced Exchange program, your Littmann 3200 or Bluetooth dongle would qualify for warranty replacement within 24 hours of the approval of the claim should there be a defect.

Only Telesteths or Littmann 3200s with a Telesteth license purchased through Cardinal Health qualify for the Advanced Exchange Warranty replacement.

Unless otherwise required, all Members are asked to contact OTN Service Desk if any technical problems with Telesteth arise. OTN Service Desk is the first line support for Telesteth technical issues.

Before you contact OTN, please ensure you have the following:

1. Your Littmann 3200 (with serial #) and access to the Telesteth pc you are using;
2. Your bill of sale or any documentation that indicates when the Telesteth was purchased.

Process:

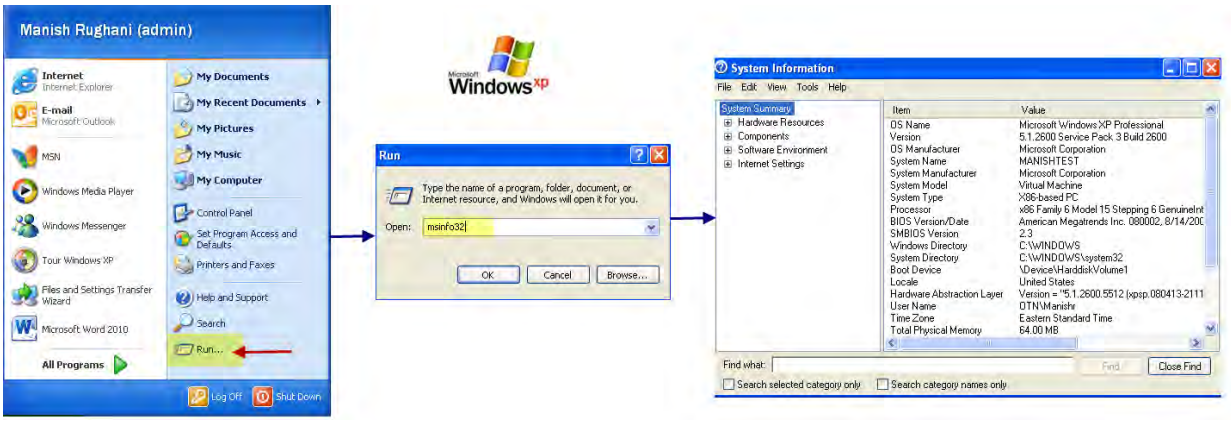
1. Call OTN Service Desk at **1-866-454-6861** to request technical assistance with Telesteth;
2. OTN Service Desk will complete a 'Telesteth Warranty Replacement Checklist' with you;
3. If your Littmann 3200 has a hardware problem that requires a warranty replacement, OTN will forward your Telesteth Warranty Replacement Checklist to Cardinal Health to request an Advanced Exchange Warranty replacement;
4. Cardinal Health will review the checklist and determine if your Littmann 3200 is under warranty;
5. If your Littmann 3200 is covered by warranty, a replacement scope will be mailed to you within 24 hours;
6. Once you receive your replacement scope, use its packaging along with the pre-printed waybill to send your defective scope back to Cardinal Healthcare;
7. Contact OTN Service Desk to certify your replacement stethoscope.

Appendices

How to View Your PC System Properties

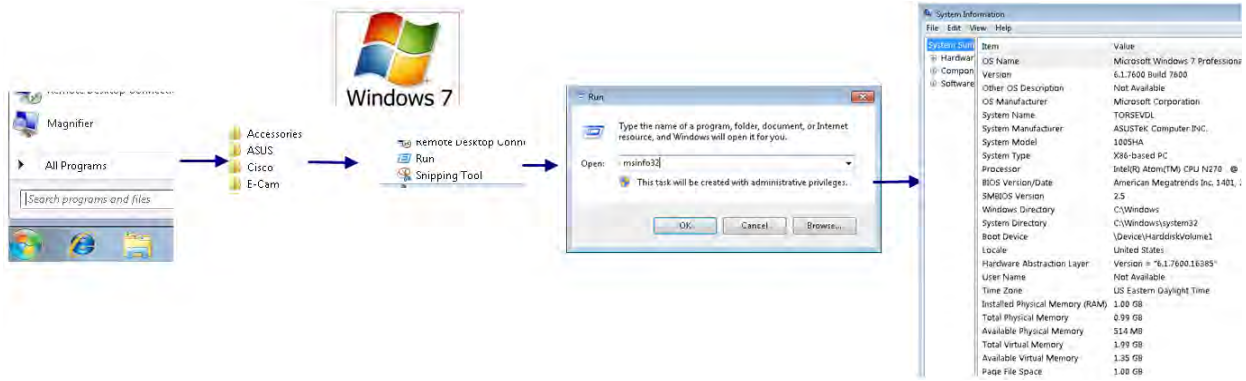
Windows XP Users System Properties:

Click on *Start* > *Run* and type msinfo32 into the popup box field that is displayed.



Windows 7 Users System Properties:

Click on *Start* > *All programs* > *Accessories* > *Run* and type msinfo32 into the popup box field that is displayed.



For help with the technical requirements for Telesteth contact your Regional Manager. If you need assistance call us at 1-866-454-6861.

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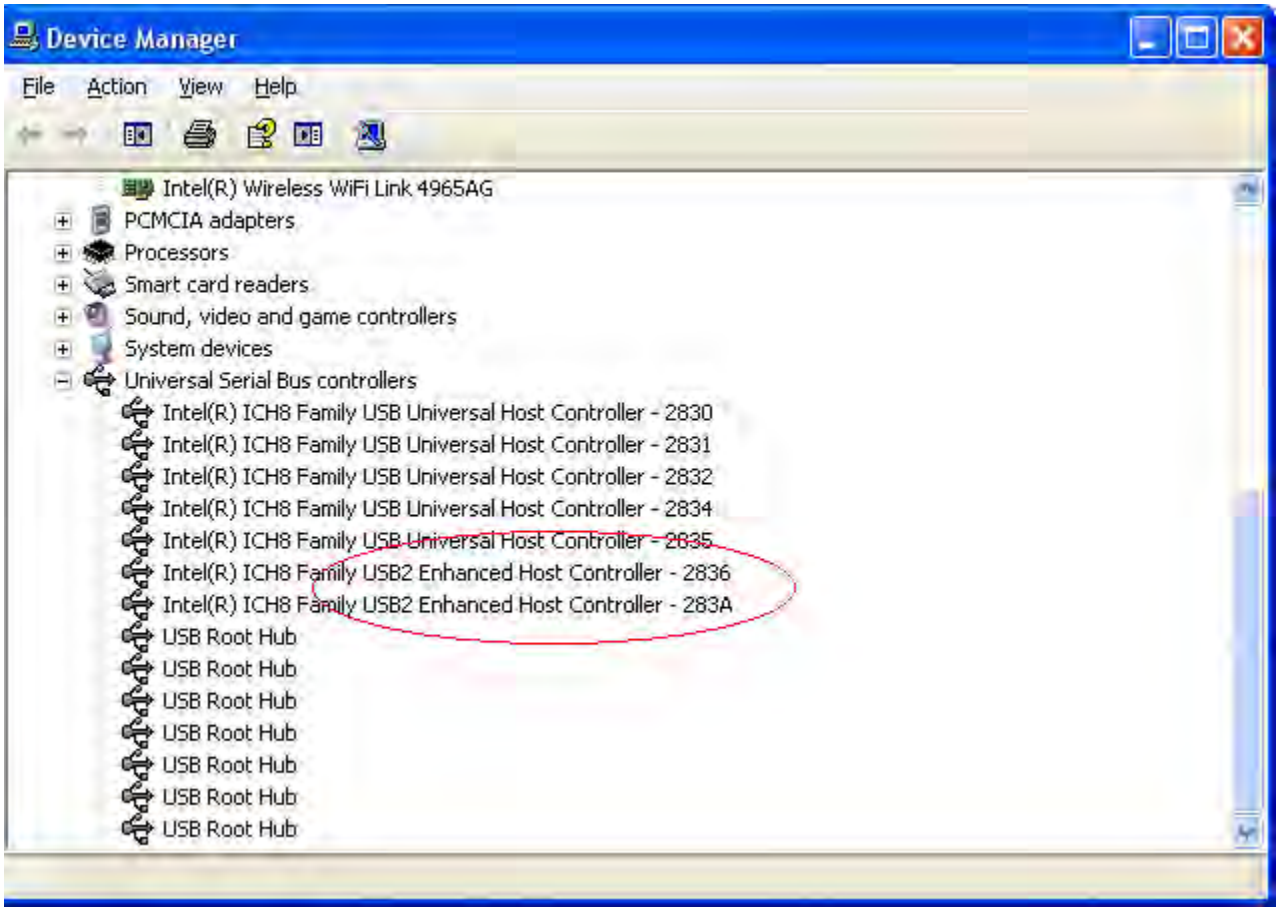
How to Tell If Your PC Has USB2

Click on *Start – Settings - Control Panel - System - Device Manager - USB* - Expand on ‘ + “ sign


Device Manager
File Action View Help
Intel(R) Wireless WiFi Link 4965AG
PCMCIA adapters
Processors
Smart card readers
Sound, video and game controllers
System devices
Universal Serial Bus controllers
Intel(R) ICH8 Family USB Universal Host Controller - 2830
Intel(R) ICH8 Family USB Universal Host Controller - 2831
Intel(R) ICH8 Family USB Universal Host Controller - 2832
Intel(R) ICH8 Family USB Universal Host Controller - 2834
Intel(R) ICH8 Family USB Universal Host Controller - 2835
Intel(R) ICH8 Family USB2 Enhanced Host Controller - 2836
Intel(R) ICH8 Family USB2 Enhanced Host Controller - 283A
USB Root Hub
USB Root Hub
USB Root Hub
USB Root Hub
USB Root Hub
USB Root Hub
USB Root Hub

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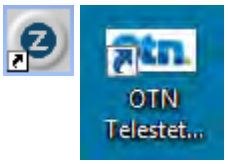
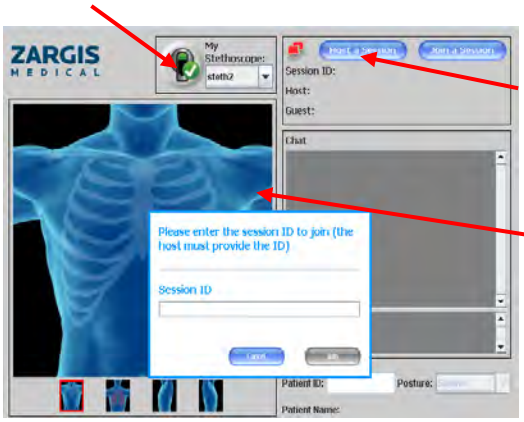
Quick Reference Guide – OTN dedicated PC – Consultant site

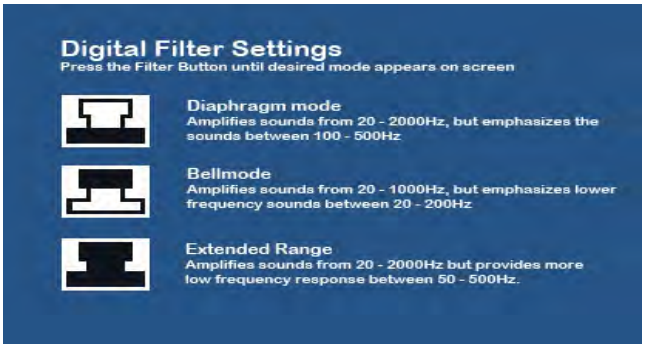
1. Plug the Bluetooth dongle into the USB port on the computer.
   - When running properly, a green light on the USB dongle will flash.
2. Turn on the Telesteth Littman 3200 stethoscope by pressing the power button.
3. Double click on the Telesteth Icon to launch Telesteth software.
   Note: software will be blocked, right click on the message header and click 'Download file.' Java will load before you see the Telesteth Welcome Window.



4. Enter your User Name and Password.
5. Follow the instructions to connect your stethoscope with your computer.
   - Click on the My Stethoscope down arrow, pick your stethoscope from the list and follow the instructions on the pop up window.
   - You will see a green checkmark when connected.



6. The Patient site will always Host the Session; the Consultant site clicks on 'Join a Session' & enters in the Session ID provided by the Patient site.
7. Once successfully connected the computer icons will turn green, and you are ready to provide placement direction to the patient site as required, adjusting the filter settings and amplification using the button on the stethoscope.

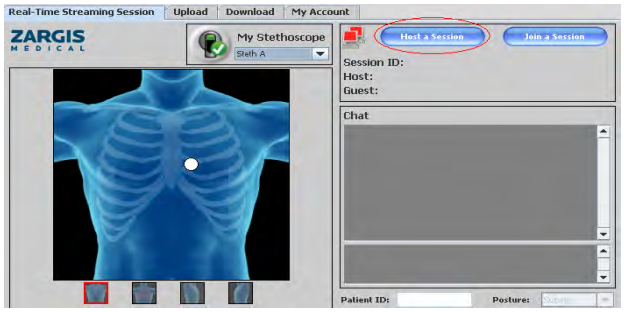

Digital Filter Settings
Press the Filter Button until desired mode appears on screen
Diaphragm mode
Amplifies sounds from 20 - 2000Hz, but emphasizes the sounds between 100 - 500Hz
Bellmode
Amplifies sounds from 20 - 1000Hz, but emphasizes lower frequency sounds between 20 - 200Hz
Extended Range
Amplifies sounds from 20 - 2000Hz but provides more low frequency response between 50 - 500Hz.

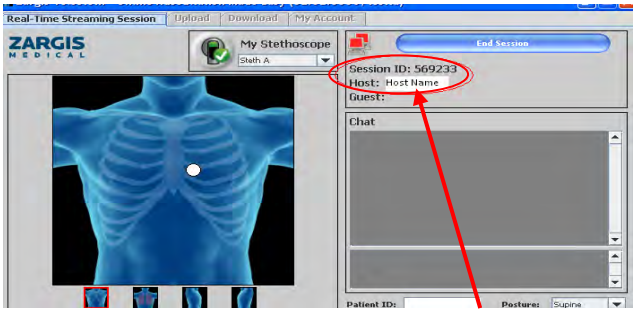
8. When patient assessment is complete, click on End Session & log out of the software

Telemedicine's Leader

Quick Reference Guide – OTN dedicated PC – Patient site

1. Plug the Bluetooth dongle into the USB port on the computer.
   - When running properly, a green light on the USB dongle will flash.
2. Turn on the Telesteth Littman 3200 stethoscope by pressing the Power bu
3. Double click on the Telesteth Icon to launch Telesteth software
   Note: software will be blocked, right click on the message header and click 'Download file'. Java will load before you see the Telesteth Welcome Window.
4. Enter your User Name and Password.
5. Follow the instructions to connect your stethoscope with your computer.
   - Click on the My Stethoscope down arrow, pick your stethoscope from the list and follow the instructions on the pop up window.
   - You will see a green checkmark when connected.





6. The Patient site will always Host the Session a random session ID number will be generated - Share the Session ID number with the Consultant site.
7. Once successfully connected the computer icons will turn green, follow the direction of the consultant regarding requested placement

8. When patient assessment is complete, click on End Session & log out of the software

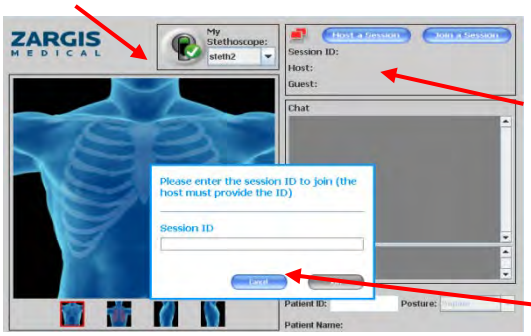
Telemedicine's Leader

Quick Reference Guide – SSLVPN PC – Consultant site

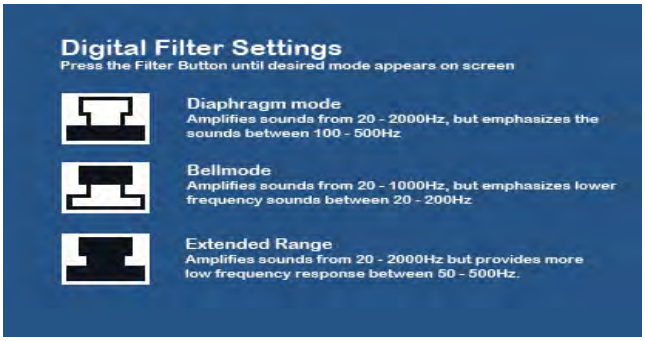
1. Plug the Bluetooth dongle into the USB port on the computer.
   - When running properly, a green light on the USB dongle will flash.
2. Connect to the network.
   a) Click on the VPN icon on your desktop.
   b) Enter your User Name and Password.
      - Always Select "OTN_Store-Forward_Access
      - Enter User Name – ex. telehealth\ssmith
      - Enter Password
      - Click Connect (upon successful connection, the VPN icon will appear in the lower right tray)

3. Turn on the Telesteth Littman 3200 stethoscope by pressing the Power button.
4. Double click on the Telesteth Icon to launch Telesteth software.
   Note: software will be blocked, right click on the message header and click 'Download file'. Java will load before you see the Telesteth Welcome Window.

5. Enter your User Name and Password.
6. Follow the instructions to connect your stethoscope with your computer.
   - Click on the My Stethoscope down arrow, pick your stethoscope from the list and follow the instructions on the pop up window.
   - You will see a green checkmark when connected.



7. The Patient site will always Host a Session; the Consultant site clicks on 'Join a Session' & enters in the Session ID provided by the Patient site.
8. Once successfully connected the computer icons will turn green, and you are ready to provide placement direction to the patient site as required, adjusting the filter settings and amplification using the button on the stethoscope.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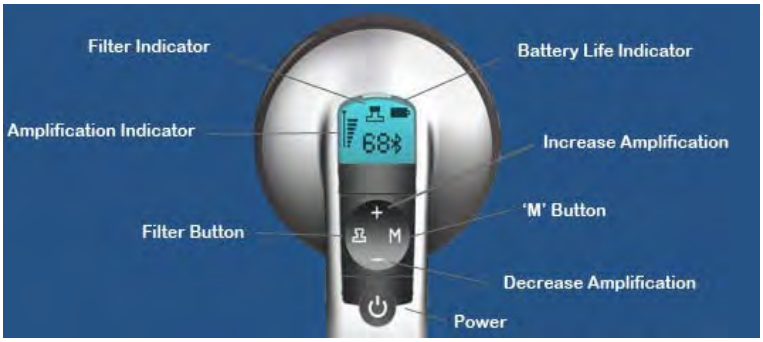

9. When patient assessment is complete, click on End Session and log out of the software
10. Disconnect the SSLVPN by right clicking on the icon in the taskbar

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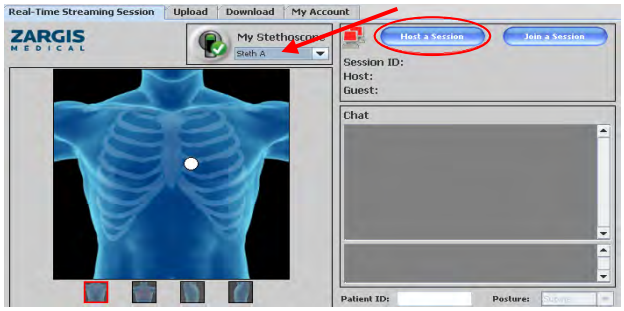
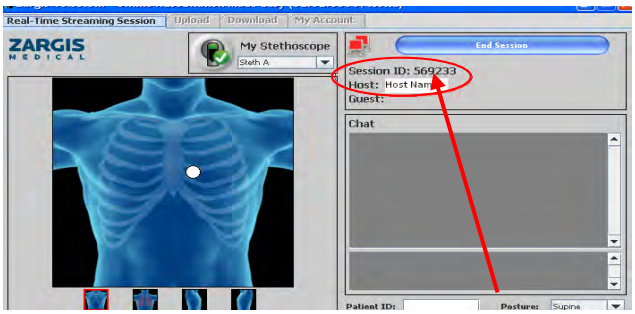
Quick Reference Guide – SSLVPN PC – Patient site

1. Plug the Bluetooth dongle into the USB port on the computer.
   - When running properly, a green light on the USB dongle will flash.
2. Connect to the network.
   a) Click on the VPN icon on your desktop.
   b) Enter your User Name and Password.
   - Always Select "OTN_Store-Forward_Access"
   - Enter User Name – ex. telehealth\ssmith
   - Enter Password.
   - Click Connect (upon successful connection occurs you will see the VPN icon in the lower right tray)

3. Turn on the Telesteth Littman3200 stethoscope by pressing the power button.
4. Double click on the Telesteth Icon to launch Telesteth software.
   Note: software will be blocked, right click on the message header click 'Download file'.
   Java will load before you see the Telesteth Welcome Window.

5. Enter your User Name and Password.
6. Follow the instructions to connect your stethoscope with your computer.
   - Click on the My Stethoscope down arrow, pick your stethoscope from the list and follow the instructions on the pop up window.
   - You will see a green checkmark when connected.





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